

REMARKS/ARGUMENTS

Applicants respectfully request reconsideration of this Patent Application, particularly in view of the above Amendment and the following remarks. No additional fee is required for this Amendment as the number of independent claims has not changed, and the total number of claims has not changed.

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Request for Telephone Interview

Applicants kindly request the Examiner to contact the undersigned at (847) 490-1400 to schedule a telephone interview, to discuss the merits of this Patent Application.

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Amendment to the Claims

Applicants have amended independent Claims 1 and 22 to recite that in the absence of the support housing (Claim 1) or the support housing and the end stop (Claim 22), the extendible initiator cup ruptures upon reaction initiation of the reactive charge. Support for this Amendment can be found, for example, at page 9, third paragraph, and page 10, first full paragraph. No new matter has been added to the claims by this Amendment.

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Claim Rejections - 35 U.S.C. §103

1. The rejection of Claims 1-2, 11-20, and 22-36 under 35 U.S.C. §103(a) as being unpatentable over Lagofun, U.S. Patent 3,873,786, in view of Murphy, U.S. Patent 2,564,209, is respectfully traversed.

5 Applicants' claimed invention is an assembly including an actuator device having an extendable initiator cup at least in part defining a storage chamber containing a reactive charge and at least one non-random fold. The extendable initiator cup has a first length prior to reaction initiation of the reactive charge and, upon reaction initiation of the reactive charge, the extendable initiator cup
10 longitudinally extends to a second length that is greater than the first length. The assembly includes a support housing with a longitudinally extending bore. The support housing is effective to limit lateral expansion of the extendable initiator cup upon reaction initiation of the reactive charge. If the extendible initiator cup is not within the support housing, the initiator cup would rupture upon reaction initiation of
15 the reactive charge.

 As described in Applicants' Specification at page 2, last paragraph, known actuator devices generally incorporate sufficiently high strength and thickness in order to avoid rupture of the bellows. Applicants' claimed invention includes a initiator cup that does rupture without support of the support housing.

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The combination of the Lagofun Patent and the Murphy Patent does not provide or suggest Applicants' claimed invention which recites an extendible initiator cup that ruptures upon reaction initiation of the reactive charge in the absence of the support housing.

5 The Office Action alleges that the Lagofun Patent discloses "an actuator including an extendible initiator cup" in elements 58 and 62, and that it would have been obvious to substitute the explosive operated motor of the Murphy Patent for the actuator of the Lagofun Patent. The Lagofun Patent discloses an anvil 58 disposed beneath an insulating member 62, but neither of these elements is an extendible
10 initiator cup that includes at least one non-random fold, as in Applicants' claimed invention. The anvil 58 and the insulating member are driven upward, i.e., movable, by the ignition of an explosive charge 56 (Col. 5, lines 1-12), but neither of these elements is extendible or includes a non-random fold as defined by Applicants.

15 The combination of the Lagofun Patent and the Murphy Patent does not make up for the deficiency of the Lagofun Patent. The Murphy Patent discloses in the first paragraph of Col. 1, that the invention relates to expansive bellows that contain an explosive charge sufficient to expand the bellows but "insufficient to cause rupture" of the bellows.

Neither the Lagofun Patent nor the Murphy Patent, alone or in combination, disclose or suggest an extendible initiator cup that ruptures in the absence of a support housing, as in Applicants' claimed invention. Thus Applicants' amended Claims 1 and 22 are patentable over the combination of the Lagofun Patent and the Murphy Patent. Claims 2, 11-20, and 23-36 depend from one of amended independent Claims 1 and 22, and are patentable for at least the same reasons as amended Claims 1 and 22.

Reconsideration and withdrawal of this rejection are respectfully requested.

2. The rejection of Claims 1-2, 11-20, and 22-36 under 35 U.S.C. §103(a) as being unpatentable over Lell, U.S. Patent 6,556,119, in view of Murphy, U.S. Patent 2,564,209, is respectfully traversed.

As discussed above, Applicants' claimed invention is an assembly including a support housing is effective to limit lateral expansion of an extendible initiator cup upon reaction initiation of the reactive charge. If the recited extendible initiator cup is not within the support housing, the extendible initiator cup would rupture upon reaction initiation of the reactive charge. As described in Applicants' Specification at page 2, last paragraph, known actuator devices such as that disclosed

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by the Murphy Patent, generally incorporate sufficiently high strength and thickness in order to avoid rupture of the bellows. Applicants' claimed invention includes a initiator cup that does rupture without the support provided by the support housing.

5 The Office Action states that the Lell Patent does not disclose an electrical actuator having an initiator cup that is extendable from a shorter length to a longer length via a plurality of corrugated folds (Office Action, page 5). The Office Action relies on the Murphy Patent for disclosing an initiator cup that is extendable from a shorter length to a longer length via a plurality of corrugated folds. However, as discussed above, the Murphy Patent does not disclose or suggest an extendible
10 initiator cup that ruptures in the absence of a support housing, as in Applicants' claimed invention.

The combination of the Lell Patent and the Murphy Patent does not make up for the deficiency of the Lell Patent. The Murphy Patent discloses in the first paragraph of Col. 1, that the invention relates to expansive bellows that contain an
15 explosive charge sufficient to expand the bellows but "insufficient to cause rupture" of the bellows.

Neither the Lell Patent nor the Murphy Patent, alone or in combination, discloses or suggests an extendible initiator cup that ruptures in the absence of a support housing, as in Applicants' claimed invention. Thus Applicants' amended

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Claims 1 and 22 are patentable over the combination of the Lell Patent and the Murphy Patent. Claims 2, 11-20, and 23-36 depend from one of amended independent Claims 1 and 22, and are patentable for at least the same reasons as amended Claims 1 and 22.

5 Reconsideration and withdrawal of this rejection are respectfully requested.

Withdrawn Claims

10 Claims 3-10, 21, and 37-40 have been withdrawn. Claims 3-10, 21, and 37-40 depend from Claims 1 and 22, respectively, which are patentable for the reasons presented herein. Claims 3-10, 21, and 37-40 should now be rejoined, due to their dependency from allowable base claims.

Conclusion

15 Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicants have not resolved in this response, Applicants' undersigned attorney again requests a telephone interview with the Examiner.

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Applicants sincerely believe that this Patent Application is now in condition for allowance and, thus, respectfully request early allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Nick C. Kottis".

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